

## REMARKS

The Official Action dated November 9, 2010 has been carefully considered. By present Amendment, claim 1 is amended to replace the language that is alleged to constitute new matter with language from the specification. Support for the specific language may be found at page 3, paragraph [007], in disclosing the “key advantage” of the inventive method. Claim 1 is further amended to correct informalities. Applicants believe entry of this Amendment is warranted and respectfully request the same. There are no other substantive changes to the claims.

Claims 1-3, 13, and 15-22 remain pending and subject to current examination.

### **Rejection under 35 USC §112**

**Claims 1-3, 13, and 15-22** under 35 USC §112, first paragraph as failing to comply with the written description requirement. Specifically, the examiner asserts that the recitation of “wherein synthesized biopolymer species are not consumed or eliminated by practice of the method,” which was added during prosecution in a Response filed on December 18, 2009, does not appear to be supported by the specification/ original disclosure. This rejection is traversed and reconsideration is respectfully requested.

As amended, the pertinent portion of independent claim 1 reads “ wherein the quality control method is performed entirely on-chip and wherein the synthesized biopolymer species are not destroyed by practice of the quality control method.”

Applicants note that support for this language is found in the specification at page 3, where, regarding the inventive methods, it is taught that “The main focus is quality control of the completeness of the biopolymer deprotection. The key advantage is that the methodology is non-destructive and requires no further steps once the final deprotection or detection has been carried out. The outcome is an evaluation of the rate of deprotection as well as of the quality of freely accessible biopolymers for later use.”

This teaching, as well as more indirect language and implied teachings from the working examples, reflects an important novel and nonobviousness aspect of the instant methods over the art/references that have been applied over the course of prosecution of the pending claims. As argued in detail in previous responses (see, e.g. Amendment under 1.114 dated October 12, 2010) in “quality control” microarray art asserted by the PTO, methods for assuring sufficient deprotection are practiced according to batch statistics and require consumption of one or more

randomly sampled arrays, or consumption of an array designed specifically to be tested from a batch, or consumption of some portion of either a randomly sample array or designated test array. As noted in previous responses, the instant invention offers comprehensive quality control at the level of the chip, not a batch. Hence, there is no statistical percentage of chips which may be deficient with respect to deprotection. Further, every chip analyzed for quality of deprotection in accordance with the instant methods remains suitable for its intended downstream use. Hence, not only do the instant inventive methods address and solve the problem of complete deprotection of nucleobases side chains, quality control is achieved with retention of full functionality of the chip.

Applicants submit that the language inserted into claim by present amendment is imported directly from express language in the specification, merely with grammatical/syntactical re-arrangement in order to incorporate it properly into the claim.

Hence, the rejection is overcome and the entire recitation of claim 1 is fully supported by the original disclosure. Claims 1-3, 13, and 15-22 are therefore novel, nonobvious, and patentable over any and all of the previously applied art, and are in full compliance with the requisites of section 112. Reconsideration and allowance are respectfully requested.

Respectfully submitted,

/Denise M. Everett/

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Denise M. Everett  
Reg. No. 47,552

Customer No.: 67491  
Phone: 502-540-2326  
Denise.everett@dinslaw.com